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# **Korea, Republic of**

## **Fishery Products**

### **Annual**

### **2000**

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**Report Highlights:** Korea entered into fishery accords with China and Russia this past year, in addition to the previous accord with Japan. In all cases, these agreements further limit the possible catch by the Korean fleet, which will decline significantly over the next 5 years. Meanwhile, a surging economy is increasing consumer appetite for seafood products, and sparking demand for greater imports to meet the annual consumption of 3 million metric tons. Imports of U.S. seafood products may reach \$140 million this year.

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Includes PSD changes: Yes  
Includes Trade Matrix: Yes  
Unscheduled Report  
Seoul ATO [KS2], KS

## SECTION I: SITUATION AND OUTLOOK

The real GDP growth rate in Korea reached 11.1 percent in the first half of 2000, although the pace has slowed since. Accordingly, the Korean government recently raised this year's GDP growth outlook to 8.5 percent from the previous target of 6 percent and lowered its inflation forecast for this year to less than 2.5 percent from the earlier 3 percent. Korea's per capita income is expected to come back to around \$10,000 in 2000 from about \$8,580 in 1999. Foreign exchange reserves totaled a record \$90 billion as of the end of June 2000.

According to Korea Trade Information Service (KOTIS) compiled by ATO Seoul (based on CIF value), total imports of seafood increased by about 22 percent to \$761 million during the first seven months of 2000 compared to the same period of 1999. Imports of seafood from the United States increased by about 23 percent to \$80 million during the cited period. These imports from the United States account for about 11 percent of total seafood imports.

The Monthly Statistics of Korea (June 2000 Issue) shows that the average monthly household expenditure on fishery products was \$26.31 in 1999 (The average annual exchange rate of Korean won against US\$ in 1999 was 1,189.5 won). Korea's per capita fish consumption is estimated at 33 Kg. a year and expected to continue to rise in the years to come thanks to increasing per capita income. Domestic consumption, still largely tied to local production, is about 3 million metric tons (MMT) a year.

Over the next 3-5 years, the Korean catch of Alaska pollack is expected to decrease as international fishery accords restrict catch size to protect fishery resources. In 2000 Russia reduced Korea's fish catch quota to 89,000 MT including 78,000 MT Alaska pollack to protect its fish resources. The Japanese/Korean fishery accord is reducing deep-sea harvest of Alaska pollack in the waters adjacent to Hokkaido island. In 2001, the accord prohibits Alaska pollack fishing in those waters.

To help meet requirements of the Korea/Japan fishery accord, Korean government accelerated the downsizing of Korea's fishing fleet in 1999 and plans to reduce further more over the next several years. Recognizing the potential economic impact of this and other fishery accords, the Korean government is undertaking an in-depth study on aquaculture.

As international fishery accords tighten supply availability over the next 3-5 years, Korea's seafood import volume is expected to increase in tandem with the expanding economy. Korean marketers are actively seeking nontraditional fishery resources to meet rising market demand and are attending international food shows to seek out such sources.

**SECTION II: STATISTICAL TABLES****Korea: Fishery Household, Population and Workers**

Year	Households	Population	Workers
1995	104,480	347,210	176,123
1996	101,677	330,464	171,822
1997	99,912	323,383	173,743
1998	98,972	322,229	172,701
1999	97,754	315,198	170,590

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Fishing Fleet by Operation**

(Unit: Vessel, Gross/Tons)

	1998		1999	
	Number of Fleet	Capacity	Number of Fleet	Capacity
On and Off-Shore	64,284	438,205	66,776	434,143
Aquaculture	20,911	27,894	21,742	29,733
Fresh Water	2,624	1,703	2,742	1,589
Deep Sea	628	357,412	620	365,146
Other	2,550	153,120	2,972	161,345
Total	90,997	978,334	94,852	991,956

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Aquaculture Area per Species**

(Unit: Hectare)

Species \ Year	1995	1996	1997	1998	1999
Fish	2,234	2,445	3,382	3,487	3,266
Mollusks	40,365	39,306	40,134	43,984	43,262
Seaweeds	62,807	61,974	60,506	61,209	64,782
Others 1/	3,356	3,114	5,134	4,307	1,276
Total	108,762	106,839	110,165	112,987	112,586

1/ Shrimp and Sea Squirts are mainly cultivated.

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: 1999 Fishery Production**

Metric Ton (MT)

	On/off shore	Aquaculture in shallow sea	Deep-Sea	Fresh water	Total
Fish	876,171	33,453	476,199	16,300	1,402,123
Crustacea	90,038	1,180	808	136	92,162
Mollusks	352,400	221,031	313,283	1,302	889,016
Seaweed & others	17,453	509,588	-	108	527,149
Total	1,336,062	765,252	791,290	17,846	2,910,450

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Production of Processed Fishery Commodities by Group**

Metric Ton (MT)

Commodity	1996	1997	1998	1999
Dried, Salted, Cooked	85,176	71,500	58,055	36,349
Preserved, Pickled	21,124	24,578	43,354	63,398
Canned	61,902	62,885	48,140	42,796
Frozen	1,265,190	1,239,365	1,110,160	1,179,024
Dried Seaweed	88,657	47,347	92,375	100,936
Agar-Agar	563	376	639	365
Ground Fish Meat	115,808	135,493	121,480	108,443
Flavor Seasoned	12,265	7,069	6,466	8,072
Fish Meal and Oil	50,716	42,590	50,700	45,361
Others	26,096	23,372	9,880	9,281
Total	1,727,497	1,654,530	1,541,249	1,594,025

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: 1999 Fishery Products Trade by Type**

(Unit: MT, 1,000 US\$)

Type	Import		Export	
	Quantity	Value	Quantity	Value
Live fish	24,595	73,327	8,809	91,228
Fresh or chilled fish	27,160	70,795	51,942	265,913
Frozen fish	591,363	859,932	276,576	678,919
Smoked fish	255	1,495	235	1,335
Dried fish	3,337	20,681	12,863	85,515
Salted or in brine	26,172	22,308	14,549	31,804
Others	52,706	61,855	42,900	105,623
Prepared/canned fish	20,739	68,573	67,770	260,198
Total	746,327	1,178,966	475,644	1,520,535

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Applied Tariff Schedule for Fishery Products**

Description	H.S. Code	1999 (%)	2000(%)
Live Fish	0301 XX XXXX	10	10
Fish, Fresh or Chilled	0302 XX XXXX	20	20
Fish, Frozen	0303 XX XXXX	10	10
Fish Fillet/Fish Meat, FR/CH	0304 10 XXXX	20	20
Fish Fillet/Fish Meat, FZ	0304 20 XXXX	10	10
Fish Surimi, Frozen	0304 90 XXXX	10	10
Fish, Dried/Salted/Brine/Smoked	0305 XX XXXX	20	20
Crustaceans	0306 XX XXXX	20	20
Oyster Spat	0307 10 1010	5	5
Oyster	0307 10 XXXX	20	20
Scallops	0307 2X XXXX	20	20
Mussels	0307 3X XXXX	20	20
Cuttle Fish and Squid	0307 4X XXXX	10	10
Octopus	0307 5X XXXX	20	20
Snails (other than sea snails)	0307 60 0000	20	20
Other Molluscs	0307 9X XXXX	20	20
Seaweed, excluded frozen	1212 20 XXXX	20	20
Laver, frozen	1212 20 1030	10	10
Sea mustard, frozen	1212 20 2040	50	50
Fish Extracts and Juice	1603 XX XXXX	30	30
Fish, prepared, preserved	1604 XX XXXX	20	20
Crustaceans/Molluscs, PREP/PSRD	1605 XX XXXX	20	20

Source: Korea Customs Research Institute, Tariff Schedule of Korea

**Korea: Adjusted Tariff Schedule For Fishery Products**

Description	H.S. Code	General (%)	1999(%)	2000(%)
Eel, Live	0301.92.xxxx	10	30	30
Sea Bream, Live	0301.99.4000	10	80	70
Sea Bass, Live	0301.99.9050	10	80	70
Loaches, Live	0301.99.9070	10	70a/	60a/
Alaska Pollack, Frozen	0303.79.1000	10	30	30
Saury, Frozen	0303.79.8000	10	50	50
Skate, Frozen	0303.79.9093	10	70	60
Croakers, Frozen	0303.79.9095	10	90	80
Alaska Pollack Fillet	0304.20.1000	10	30	25
Shrimp, Not Pld, Frozen	0306.13.9000	20	40	35
Shrimp, In Brine	0306.23.3000	20	70	60
Scallops	0307.2x.xxxx	20	na	na
Squid, Frozen	0307.49.1020	10	40	40
Poult Squid, Frozen	0307.59.1020	20	40	35
Sea Mustard	1212.20.2xxx	20	na	na
Tuna And Skipjack, canned	1604.14.xxxx	20	na	na
Bai Top Shell	1605.90.9070	20	na	na
Seasoned Squid	1605.90.9010	20	30	25

a/ Excluded loaches imported for aquacultural purpose under the approval of the Minister of Maritime and Fisheries.

Source: Korea Customs Research Institute, Tariff Schedule of Korea

**Korea: Consumer Price Indices Of Food And Beverages**

(1995 = 100)

Year	All Item	Food	Meat	Fishes & Shells	Vegetable & Seaweed
1995	100	100.0	100.0	100.0	100.0
1996	104.9	103.9	98.8	103.2	104.2
1997	109.6	107.9	98.7	105.6	107.5
1998	117.8	117.3	100.9	114.5	120.3
1999	118.8	120.6	106.6	121.3	129.6

Source: National Statistics Office

**Fish/Urchin Roe/Caviar Lvr PSD**

PSD Table						
Country:	Korea, Republic of					
Commodity:	Fish,Urchin Roe/Caviar,Livers					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Beginning Stocks	0	0	0	0	0	0
Total Production	5000	7538	5000	6000	0	6000
Intra-EC Imports	0	0	0	0	0	0
Other Imports	25000	15822	25000	18000	0	19000
TOTAL Imports	25000	15822	25000	18000	0	19000
<b>TOTAL SUPPLY</b>	30000	23360	30000	24000	0	25000
Intra-EC Exports	0	0	0	0	0	0
Other Exports	20000	12846	20000	13000	0	12000
TOTAL Exports	20000	12846	20000	13000	0	12000
Domestic Consumption	10000	10514	10000	11000	0	13000
Other Use/Loss	0	0	0	0	0	0
TOTAL Utilization	10000	10514	10000	11000	0	13000
Ending Stocks	0	0	0	0	0	0
<b>T O T A L</b>	30000	23360	30000	24000	0	25000
<b>DISTRIBUTION</b>						



**Korea: Import Trade Matrix - Fish and Urchin Roe/Caviar/Lvr**

Units: Metric Ton

Import Trade Matrix			
Country:	Korea, Republic of	Units:	MT
Commodity:	Fish,Urchin Roe/Caviar,Livers		
Time period:	JAN/DEC		
Imports for	1998		1999
U.S.	1083	U.S.	953
Others		Others	
Russia	11755	Russia	12010
China	681	China	850
Japan	662	Japan	659
New Zealand	136	New Zealand	835
Total for Others	13234		14354
Others not listed	259		515
Grand Total	14576		15822

Source: Korea Customs Service

**Korea: Production of Fish Roes, Urchin**

Metric Ton (MT)

Items	1996	1997	1998	1999
Roes of Alaska Pollack (from distant seas)1/	5,968 (3,390)	5,456 (1,359)	5,058 (1,254)	7538 (1490)
Herring Roes	-	-	-	-
Sea Urchin	942	445	58	0
Total	6,910	5,901	5,116	7,538

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Imports of Fish and Urchin Roe/Caviar/Liver (Metric Ton (MT))**

Species	H.S. Code	1999		2000(Jan-Jun)	
		World	U.S.	World	U.S.
Livers, Fresh	0302.70.1000	7	7	3	3
Livers, Fz	0303.80.1000	2	0	0	0
Roes/AK Pollack,FZ	0303.80.2010	14,272	857	4,480	372
Other Roes, FZ	0303.80.2090	1,204	88	663	333
Roes/Herrings, Dried	0305.20.4030	0	0	0	0
Other roes, Salted	0305.20.4090	0	0	0	0
Sea Urchin, Fresh	0307.91.9010	5	0	0	0
caviar	1604.30.1000	2	1	1	0
Caviar, Substitute	1604.30.2000	330	0	243	0
Total		15,822	953	5,390	708

**Korea: Exports of Fish and Urchin Roe/Caviar/Liver (Metric Ton (MT))**

Species	H.S. Code	1999		2000(Jan-Jun)	
		World	U.S.	World	U.S.
Livers, Fresh	0302.70.1000	2	0	1	0
Livers, Fz	0303.80.1000	0	0	0	0
Roes/AK Pollack,FZ	0303.80.2010	7,431	35	920	9
Other Roes, FZ	0303.80.2090	453	6	215	0
Roes/Herrings, Dried	0305.20.4030	0	0	0	0
Other roes, Salted	0305.20.4090	70	37	58	5
Sea Urchin, Fresh	0307.91.9010	236	0	94	0
caviar	1604.30.1000	15	15	12	0
Caviar, Substitute	1604.30.2000	4,639	25	2,192	7
Total		12,846	118	3,492	21

Source: Korea Custom Service

**Flatfish, Whl/Eviscerated PSD**

PSD Table						
Country:	Korea, Republic of					
Commodity:	Flatfish, Whole/Eviscerated					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Beginning Stocks	0	0	0	0	0	0
Total Production	50000	43059	50000	45000	0	45000
Intra-EC Imports	400	0	500	0	0	0
Other Imports	25000	23100	20000	25000	0	30000
TOTAL Imports	25400	23100	20500	25000	0	30000
<b>TOTAL SUPPLY</b>	75400	66159	70500	70000	0	75000
Intra-EC Exports	1000	0	1000	0	0	0
Other Exports	10000	9702	9000	10000	0	10000
TOTAL Exports	11000	9702	10000	10000	0	10000
Domestic Consumption	64400	56457	60500	60000	0	65000
Other Use/Loss	0	0	0	0	0	0
TOTAL Utilization	64400	56457	60500	60000	0	65000
Ending Stocks	0	0	0	0	0	0
<b>TOTAL DISTRIBUTION</b>	75400	66159	70500	70000	0	75000

**rea: Import Trade Matrix - Flatfish**

Units: Metric Ton

Import Trade Matrix			
Country:	Korea, Republic of		Units: MT
Commodity:	Flatfish, Whole/Eviscerated		
Time period:	JAN/DEC		
Imports for	1998		1999
U.S.	15764	U.S.	11268
Others		Others	
Russia	4673	Russia	7841
China	576	G. Bissu	1099
EU	188	China	976
Guinea	276	Hong Kong	652
		EU	423
		Guinea	238
		Belize	232
<b>Total for Others</b>	5713		11461
<b>Others not listed</b>	702		371
<b>Grand Total</b>	22179		23100

Source: Korea Customs Service

**Korea: Flatfish Production**

## Metric Ton (MT)

Fishing Type	1996	1997	1998	1999
On and Off-Shore	20,383	19,671	22,137	21,248
Deep-Sea	417	348	135	443
Aquaculture	8,873	26,274	22,277	21,368
Total	29,673	46,293	44,549	43,059

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Imports of Flatfish**

## Metric Ton (MT)

Species	H.S. Code	1999		2000(Jan-Jun)	
		World	U.S.	World	U.S.
Flat Fish, Live	0301.99.8000	29	0	25	0
Plaice , Fresh	0302.22.0000	3	0	4	0
Sole, Fresh	0302.23.0000	0	0	8	0
Halibut, Frozen	0303.31.0000	43	0	17	1
Plaice, Frozen	0303.32.0000	1,111	0	763	19
Sole, Frozen	0303.33.0000	539	0	868	412
Others	0303.39.0000	21,375	11,268	3,647	493
Total		23,100	11,268	5,332	925

Source: Korea Custom Service

**Groundfish, Whl/Eviscerated PSD**

PSD Table						
Country:	Korea, Republic of					
Commodity:	Groundfish, Whole/Eviscerated					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Beginning Stocks	0	0	0	0	0	0
Total Production	180000	160929	170000	120000	0	110000
Intra-EC Imports	200	0	200	0	0	0
Other Imports	66000	91664	60000	110000	0	120000
TOTAL Imports	66200	91664	60200	110000	0	120000
<b>TOTAL SUPPLY</b>	246200	252593	230200	230000	0	230000
Intra-EC Exports	2000	0	2000	0	0	0
Other Exports	15000	11347	35000	10000	0	10000
TOTAL Exports	17000	11347	37000	10000	0	10000
Domestic Consumption	229200	241246	193200	220000	0	220000
Other Use/Loss	0	0	0	0	0	0
TOTAL Utilization	229200	241246	193200	220000	0	220000
Ending Stocks	0	0	0	0	0	0
<b>TOTAL DISTRIBUTION</b>	246200	252593	230200	230000	0	230000

**Korea: Import Trade Matrix - Groundfish, Whl/Eviscerated**

Units: Metric Ton

Import Trade Matrix			
Country:	Korea, Republic of	Unit: MT	
Commodity:	Groundfish, Whole/Eviscerated		
Time period:	JAN/DEC		
Imports for	1998		1999
U.S.	3202	U.S.	5664
Others		Others	
Russia	27271	Russia	67438
EU	187	Japan	12308
		China	5393
Total for Others	27458		85139
Others not listed	2418		861
Grand Total	33078		91664

Source: Korea Customs Service

**Korea: Groundfish Production**

Metric Ton (MT)

Year	Deep-Sea	On/Off Shore	Total
1995	337,571	14,244	353,815
1996	222,619	13,518	236,424
1997	221,026	8,683	229,709
1998	238,402	7,737	246,139
1999	155,269	5,660	160,929

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Import of Groundfish**

Metric Ton (MT)

Species	H.S. Code	1999		2000(Jan-Jun)	
		World	U.S.	World	U.S.
Cod, Fresh	0302.50.0000	1,354	410	1,701	224
Alaska Pollack, Fresh	0302.69.1000	5,720	1	5,772	0
Cod, Fz.	0303.60.0000	15,891	1,710	5,722	2,643
Hake, Fz.	0303.78.0000	294	0	101	0
Alaska Pollack	0303.79.0000	67,654	3,543	33,576	2,038
Alaska Pollack,Dried	0305.59.3000	751	0	678	0
Total		91,664	5,664	47,550	4,905

Source: Korea Custom Service

## Surimi PSD

PSD Table						
Country:	Korea, Republic of					
Commodity:	Surimi					
		1999		2000		2001
	Old	New	Old	New	Old	New
Market Year Begin		01/1999		01/2000		01/2001
Beginning Stocks	0	0	0	0	0	0
Total Production	25000	32996	25000	30000	0	30000
Intra-EC Imports	0	0	0	0	0	0
Other Imports	60000	72107	65000	75000	0	80000
TOTAL Imports	60000	72107	65000	75000	0	80000
<b>TOTAL SUPPLY</b>	85000	105103	90000	105000	0	110000
Intra-EC Exports	0	0	0	0	0	0
Other Exports	2500	2261	4000	2500	0	3000
TOTAL Exports	2500	2261	4000	2500	0	3000
Domestic Consumption	82500	102842	86000	102500	0	107000
Other Use/Loss	0	0	0	0	0	0
TOTAL Utilization	82500	102842	86000	102500	0	107000
Ending Stocks	0	0	0	0	0	0
<b>TOTAL DISTRIBUTION</b>	85000	105103	90000	105000	0	110000

## Korea: Import Trade Matrix - Surimi

Units: Metric Ton

Import Trade Matrix			
Country:	Korea, Republic of	Units: MT	
Commodity:	Surimi		
Time period:	JAN/DEC		
Imports for	1998		1999
U.S.	20277	U.S.	28299
Others		Others	
Russia	6364	China	9057
Vietnam	3259	Vietnam	8584
Argentina	1463	Hong Kong	6004
Thailand	2816	Russia	5946
China	4543	Canada	5091
India	540	Thailand	3634
Japan	450	Japan	2062
Malaysia	923	Malaysia	1253
Canada	1163	Argentina	601
		India	554
<b>Total for Others</b>	21521		42786
<b>Others not listed</b>	594		1022
<b>Grand Total</b>	42392		72107

Source: Korea Customs Service

## Korea: Surimi Production

## Metric Ton (MT)

Year	On/Off Shore	Deep-Sea	Total
1995	27,852	26,714	54,566
1996	6,800	16,044	22,844
1997	17,515	20,471	37,986
1998	14,769	15,668	30,437
1999	14,693	18,303	32,996

Source: The Ministry of Maritime Affairs and Fisheries (MOMAF)

**Korea: Import of Surimi**

## Metric Ton (MT)

Species	H.S. Code	1999		2000 (Jan-Jun)	
		World	U.S.	World	U.S.
Alaska Pollack	0304.90.1010	23,495	21,278	13,501	1,269
Others	0304.90.1090	48,612	7,021	20,955	4,190
Total		72,107	28,299	34,456	5,459

Source: Korea Custom Service

FISHERY PRODUCTS STRATEGIC INDICATOR TABLE					
		Previous	Current	Next	5 Year
		Year	Year	Year	Projections/
					Expectations
U.S. Competitive Position	Measurement *	Situation	Situation	Expectations	Expectations
U.S. Access Relative to Rest of World- Non-Tariff Measures (NTM)	Worse, equal, or better (choose one)	equal	equal	equal	equal
U.S. Access Relative to Rest of World - Tariffs	Higher, equal, or lower(choose one)	equal	equal	equal	equal
Presence of Marketing Programs (domestic and 3rd country) versus U.S. programs	More aggressive, about the same, or less aggressive (select one)	same	same	same	same
U.S. Prices Relative to Domestic and 3rd Country Prices	Higher, equal, or lower (choose one)	higher	higher	higher	higher
U.S. Market Share (3 Year Average)	Percent	11	11	12	13
		Previous	Current	Next	5 Year
		Year	Year	Year	Projections/
					Expectations
Market Attractiveness	Measurement *	Situation	Situation	Expectations	Expectations



Per Capita Consumption of All Fishery Products	Kg per person	32	33	34	35
Per Capita Consumption of animal proteins (excluding fishery products)	Kg per person	9	10	10.5	11
Percent of population with refrigerators	Percent	100	100	100	100
Percent of fishery product sales at supermarkets	Percent	23	25	27	30
Percent of total food sales at supermarkets	Percent	na	na	na	na
Percent of animal protein sales at supermarkets (excluding fishery products)	Percent	17	19	22	25
Percent of fishery sales at HRI establishments	Percent	na	na	na	na
Percent of fishery sales at open markets	Percent	33	35	35	35

Source: Post

### SECTION III: NARRATIVE ON SUPPLY AND DEMAND, POLICY & MARKETING

#### Production

The Korean fishing industry harvested 2.91 million metric tons (MMT) of seafood including 1.336 million MT in the on/off shore, 765 thousand MT in the shallow sea, 791 thousand MT in the deep-sea and 18 thousand MT in fresh water. In 2000, total seafood production is expected to decline considerably in accordance with the proclamations of the Exclusive Economic Zones (EEZ) by Korea's neighbor countries, reduction of seafood resources in the on/off shore and Russia's reduction of Korea's fish catch quota to 89,000 MT. Total production of seafood during the first 7 months of 2000 reached 1.45 million MT.

In 1999, Alaska pollack catch declined sharply to 146 thousand MT from 230 thousand MT, specifically that sourced from Russian waters. During the first 7 months of 2000, Alaska pollack catch declined significantly to 30,565 MT. As groundfish, surimi, and roe production correlates directly with Alaskan pollack catch, total 2000 production is expected to be down from the 1999 level.

Constraints built into bilateral and multilateral fishing accords will impact further total harvest from on/off-shore fishery zones. On/off-shore fish species consist mainly of squid, mackerel, corvenia, hair tail and anchovy. Government efforts to boost aquaculture production clearly indicates the importance of this sector as a future seafood resource.

During the first 7 months of 2000, deep-sea catch totaled 416,443 MT. Deep-sea production is also expected to decline in the longer term as Russia reduces Alaska pollack catch quotas in effort to rebuild fish stocks in coastal waters. The deep-sea industry catches mainly Alaska

pollack, tuna, and squid.

Fresh water production is expected to decline in the nearby period as tighter enforcement of governmental environment regulations to cope with growing pollution problems is implemented to fresh water aquaculture. The longer term outlook for this sector, though, is promising if control efforts put into place prove effective. During the first 7 months of 2000 fresh water product reached 12,306 MT.

### **Resource Management**

A Total Allowable Catch (TAC) was first implemented in 1999 for four fish species: mackerels, jack mackerels, sardine and red large crab. The Ministry of Maritime Affairs and Fisheries (MOMAF) established the TAC total for 2000 by fish species as follow: mackerels-170,000 MT, jack mackerels-13,800 MT, sardine-22,600 MT, red large crab-39,000 MT .

The Korean government reduced the number of fishing vessels by about 700 in 1999 operating off shore in an effort to meet requirements of the Korea/Japan fishery accord. The Korean government plans to reduce more large sized fishing boats operating in the adjacent waters over the next few years. Since 1986, the Korean government has only permitted new construction of fishing boats to replace retiring vessels.

### **Consumption**

Consumption of seafood is expected to rise in 2000 as imports increase in line with the economic recovery. Per capita fishery consumption is estimated to be around 33 kg in 2000. Domestic consumption is about 3 million metric tons (MMT) a year.

Efforts by the Korean industry to change consumer's perception of fish (as a healthy alternative to red meat), to diversify fish products, to improve quality, and to develop its processing technology will be key factors to capture consumers attention.

### **Trade**

With over 100 percent increase in imports of seafood in 1999 over 1998, imports of seafood during the first seven months of 2000 increased by 22 percent to \$761 million from \$623 million during the same period of last year. Seafood imports from the United States during the same period increased by 23 percent to \$80 million from \$65 million of the same period of 1999. Korea remains an important market for U.S. seafood suppliers. Given Korea's high per capita consumption and lower domestic production, imports are expected to rise to meet local demand in the coming years.

Imported seafood products are utilized for both re-export and domestic consumption. Major suppliers include China, Russia, the United States, Japan and Thailand. In 1999, these five countries accounted for 76 percent of total Korean seafood imports on a value basis. In 1999, China became the largest supplier.

## **Policy**

Korean tariffs are assessed on the C.I.F. value basis. Tariffs are payable prior to release of product by Customs. Since market liberalization on July, 1, 1997, the Korean government has used the adjusted tariff schedule to protect select domestic products mainly from fishery products sourced from China..

In September 1998, Korea and Japan reached a fishery agreement on the eastern limit line for Korean fishing activities in the East Sea/Sea of Japan. Catch volume was synchronized to be equal in three years with all species except for Alaska pollack and king crab. In 1999, Korea and Japan agreed on the number of crab fishing boats and fishing nets permitted in each other's exclusive economic zones (EEZs). Accordingly, in 1999, Korea reduced the number of vessels dedicated to harvest of king crab in Japan's EEZ to 30 vessels, and the catch volume quota from 860 MT to 250 MT. Further, sparse dragnets are now required, to enable younger crabs to avoid premature capture.

In early August 2000, Korea and China reached the following fishery agreement on the fish catch in the adjacent sea of Yantze River of Yellow Sea. Korea shall not catch fishes from 2003. From 2001 Korea shall not catch fishes during June 16-September 16 (Summer fishing suspension). Korea shall reduce trawlers and stow nets by half and other fishing vessels by 30 percent in 2002. However, Korea can catch fishes when the fish resources have recovered in the sea. In the meantime, China shall not catch fishes in the adjacent sea of 5 Korean islands in the Yellow Sea. The agreement will be effective in early 2001 after it has been ratified by the National Assembly.

## **Marketing**

Flatfish from the U.S. dominates the Korean market. Raw flounder is a popular Korean dish in port cities and in upscale restaurants in Seoul. All flat fish are freely importable now. Live halibut in high demand for its popularity as Sashimi. Stiff competition is provided by locally-farmed halibut.

Groundfish composed of major commercial species such as Alaska pollack and Cod appears to offer a promising market for U.S. suppliers given Korea's production outlook. The Korean government has applied an adjustment tariff of 30 percent on frozen Alaska pollack.

Surimi is the second largest imported seafood product on a value basis. U.S. origin surimi is produced mainly at-sea under joint ventures with major Korean surimi processors. Russia, Argentina, China and Southeast Asian nations have gained market share from the United States in recent years. Frozen surimi imported to Korea is processed to ground fish sausage and artificial crab meat for both local and overseas markets.

The market for Korean Alaska pollack roe is large. For U.S. suppliers, imported roe is processed for local consumption and re-export to Japan. Alaskan pollack roe is the most popular and is used for salted/spiced roe. It is a very popular and traditional side dish over rice at the Korean table. Russia, though the dominant supplier, may have difficulties fully servicing

demand by market if its resources continue to deplete rapidly.